

## **Workshop on peer review Bamako, 9-13 January 2006**

The workshop was organized by *Mali Médical* and was facilitated by Professor A.K. Koumaré (consultant in biomedical writing), Professor S. Sidibé (Editor-in-Chief of *Mali Médical*) and Elisabeth Heseltine (European Association of Science Editors). The programme is attached as Annex 1 to this report.

The 19 participants introduced themselves, describing their professional affiliations and their experience in peer review. The list of participants is attached as Annex 2. About half had experience in peer review, some with extensive practice, making a useful balance for the ensuing discussion. They represented various medical specialities but also agronomy and social sciences.

A 'pre-test' was then administered, to measure the participants' baseline knowledge about scientific publications in general and peer review in particular. The questionnaire is attached as Annex 3 to this report.

The first morning was taken up with a general discussion of the process of peer review. The objectives were seen to be evaluation of the scientific content of an article according to the editorial policy of the journal, evaluation of the intrinsic scientific validity of the article and attention to adherence to the instructions to authors of the journal. The dual role of reviewers was seen to be (i) to identify errors of method, results or interpretation and (ii) to identify errors of presentation, including language, organization and length.

The participants listed the advantages of peer review as a mechanism for:

- quality control;
- enforcement of standards of medical practice;
- improvement of science and of its communication;
- promotion of the journal; and
- enhancing the visibility of the author.

The potential disadvantages were stated to be:

- exclusion of new ideas or approaches;
- reinforcement of wrong ideas or approaches;
- approval of bad work;
- plagiarism;
- discouragement of authors; and
- delay in publication of results.

The participants then discussed whether the current system works and whether it has more advantages than disadvantages. They concluded that there is currently no alternative. It was generally agreed that each manuscript should be seen by two reviewers, with a third brought in in cases of conflicting opinions. In the African context, where the pool of both authors and reviewers is small and everyone knows each other, at least by reputation, it is essential to maintain the anonymity of the reviewers and of the authors.

Most of the journals represented – *Annales de la Faculté des Lettres, Arts et Sciences Humaines* (Mali), *Annales de l'Université de Ouagadougou* (Burkina Faso), *Annales de l'Université Marien N'Gouabi* (Congo), *Burkina Médical* (Burkina Faso), *Dakar Médical* (Senegal), *Guinée Médical*, *Journal de la Société des Sciences Médicales* (Mauritania), *Journal de Neurologie-Neurochirurgie et de Psychiatrie* (Guinea), *Journal des Sciences Sociales* (Côte d'Ivoire), *Mali Médical*, *Revue de l'Association des Botanistes de l'Afrique de l'Ouest* (Mali), *Revue des Sciences Médicales de Togo* – give some feedback to their reviewers concerning the publication of papers they have reviewed. The participants rejected the idea that authors might suggest the names of referees to review their manuscripts or of referees whom they consider might have a conflict of interest. It was agreed that authors should trust the editorial boards of journals to choose referees.

A list of various types of communication was considered by the group, who discussed the place of each in their journals. None publishes review articles, and few publish letters to the editor. Reports of cases or case series are common, but the participants agreed that they should be accepted for publication only if they provide new information. Editorials were seen to be often deficient, in many instances simply listing the articles in the issue in which they appear.

On the second day, the participants discussed the content of instructions to authors. They considered that it was not the role of a journal to teach its authors how to write and that the instructions to authors should take up at most two pages of the journal. Nevertheless, some considered that once a year it would be useful to provide a longer, more didactic description of how to write a paper. The instructions should include a statement of the journal's editorial policy, the types of articles the journal publishes and instructions for each, including the maximum number of pages. The general requirements for each section of an original article should be described. The participants were given a photocopy of the latest version of the *Uniform requirements for manuscripts submitted to biomedical journals* and also a copy of the previous version which had been translated into French in the context of the publication *Comment lire, présenter, rédiger et publier une étude clinique ou épidémiologique*<sup>1</sup> (How to read, present, write and publish a clinical or epidemiological study).

A brief presentation was given on the aims of scientific journals, including the scientific role, the editorial policy and the composition and role of the editorial board. The example used was *Mali Médical*. The members of the board are designated by the appropriate learned society and serve on the board for 2 to 3 years. Their

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<sup>1</sup> Salmi LR. 2002. *Comment lire, présenter, rédiger et publier une étude clinique ou épidémiologique*. Paris : Elsevier.

role is to ensure the content of the various parts of the journal, to give an initial opinion about the scientific content and to select manuscripts and reviewers. The board transmits the experts' opinions to authors and, on the basis of those opinions and the author's responses, comes to a decision about publication of an article. The board also ensures a coherent style in the journal. The problems of postal delays are quickly disappearing with the use of e-mail; the main reasons for delays are reviewers not returning manuscripts on time and tardy authors' responses to reviewers' comments. The quality of the journal is judged by its readers. As most African journals are not on Medline, owing mainly to unavoidable irregularities in the frequency of their appearance, the impact factor is not used in their evaluation. In a discussion of the impact factor, it was agreed that it is in any case not a suitable measure of quality in the African context.

The participants then considered a manuscript which had been submitted to *Mali Médical* for publication and went through it, section by section, to consider its suitability for publication and to suggest ways in which it could be improved. During this session, the issue of authorship was discussed, using as a basis the criteria for authorship outlined in the *Uniform requirements*. The participants agreed that every person named as an author should have contributed to the study. It is the role of the main author to ensure that such participation occurs, perhaps by agreeing on authorship at the beginning of the study.

On the third day, the criteria and principles of peer review were presented and discussed. Some time was spent in discussing evaluation of study protocols by ethics committees. Three of the countries represented do not have national or institutional ethics committees. All the participants were, however, aware of the Helsinki Declaration and of the importance in clinical studies of applying the principle of ensuring that no physical or mental harm is done to participants in studies.

The discussion then centred on the responsibilities of peer reviewers and the mechanics of writing a review of a manuscript. Most of the journals represented have instructions to reviewers, almost all including a series of checklists. It was agreed that scientists can be motivated to review manuscripts by having their names published each year in the journal in a list of peer reviewers. The participants agreed to exchange the names of competent reviewers in various specialties, to build up a database of reviewers for French-language African scientific journals, to be coordinated by Professor Sidibé.

At the end of the third day, the 'post-test' was administered, to determine how much the participants had learnt during the three days of the workshop. Participants also received a manuscript which they were asked to review overnight according to the principles outlined during the workshop and the instructions to reviewers of *Mali Médical*. The manuscripts were actual submissions to the journal, and Professor Sidibé told the participants that their reviews would be used as a basis for the decision of the editorial board about publication of the manuscripts. Ten manuscripts were distributed to the 19 participants, such that there would be two reviews of almost every study; however, the participants were unaware of who had received the same manuscript as they and were asked not to discuss the manuscripts among themselves.

The participants were given a list of various online sources of references. It was agreed that reviewers have to have the most up-to-date information possible in order to review papers fairly and to advise authors on relevant studies that they might have overlooked. They were also given a list of sources for full text retrieval from the International Network for the Availability of Scientific Publications (INASP). The group was informed of the recent creation of the African Index Medicus. The participants then moved over to a neighbouring cyber café, where everyone tried their hand at retrieving references pertinent to the manuscript that they had been asked to review.

On the last day, the participants presented their reviews, which were commented on by the facilitators, who had reviewed all 10 manuscripts. Many useful comments on both substance and form were given, which Professor Sidibé collected for presentation to the editorial board of *Mali Médical*.

The usefulness of the workshop was estimated on the basis of a comparison of the pre- and post-tests and also on the basis of the manuscript reviews. The comparison of the two tests showed a mean score of 5.1 on the pre-test and 14.4 on the post-test, with standard deviations of 2.5 and 2.4, respectively. The difference was significant, at  $p < 0.0001$ .

The participants were also asked to give their own appreciation of the workshop, by filling in a questionnaire, which is attached as Annex 4 to this report. Overall, the participants were satisfied that the objectives of the workshop had been attained and that they would be able to use the knowledge gained. The mean score was 6.62 out of 9 (range, 4.60-8.00). The suggestions for future workshops included scientific writing, research methodology and statistics for various types of investigation, various aspects of African journals and journal management. The participants received a CD-ROM containing all the presentations made during the workshop.

At the closing of the meeting, various speakers emphasized the value of having participants from a range of disciplines, which had enhanced the discussions. The workshop had provided a jumping off place for stronger collaboration among African journals and learned societies.

**MS ELISABETH HESELTINE  
MR SIAKA SIDIBE**

### Annex 1. Workshop on peer review of scientific manuscripts: Programme

Day	Subject	Facilitator(s)
Monday 9 January	Opening ceremony	
	Pre-test	A.K. Koumaré
	Presentation of the workshop and of the participants	
	Peer review (general discussion)	E. Heseltine
	Various types of communication and their objectives	E. Heseltine
Tuesday 10 January	National holiday	
Wednesday 11 January	Instructions to authors of a scientific journal	E. Heseltine
	Objectives of a scientific journal	S. Sidibé
	Structure of a scientific manuscript	E. Heseltine
Thursday 12 January	Criteria and principles of peer review	E. Heseltine
	Responsibilities of reviewers and writing a review	E. Heseltine
	Post-test	A.K. Koumaré
	Access to full-text articles and literature searching	E. Heseltine, A.K. Koumaré, S. Sidibé
	Exercise and discussion of reviews	E. Heseltine, A.K. Koumaré, S. Sidibé
Friday 13 January	General discussion	E. Heseltine, A.K. Koumaré, S. Sidibé
	Results of pre- and post-test	A.K. Koumaré
	Evaluation of workshop	Participants
	Closing ceremony	

### Annex 2. Workshop on peer review of scientific manuscripts: List of participants

Alhousseini Ag Mohamed, Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Agnon Ayelola Koffi Balogou, Faculté Mixte de Médecine et de Pharmacie, Togo

Flabou Bougoudogo, *Mali Médical* et Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Abdramane Dia, Editor-in-Chief, *Dakar Médical*, Senegal

Dapa Diallo, *Mali Médical* et Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Lassine Diarra, Editor-in-Chief, journal of the Institut d'Economie Rurale, Mali

Amagana Dolo, Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Nacoulma Eric, *Burkina Médical*, Burkina Faso

Elisabeth Heseltine, European Association of Science Editors, France

Assane Kane, Faculté de Médecine, Senegal

Abdel Karim Koumaré, Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Baba Koumaré, Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Messaoud Lahbib, Institut des Sciences Fondamentales et de la Recherche Appliquée, Mali

Mamadou Niang, Laboratoire Centrale Vétérinaire, Mali

Jean-Louis Nkoua, *Annales de l'Université Marien N'Gouabi*, Congo

Brahim Ntaghry, *Journal de la Société des Sciences Médicales*, Mauritania

Ibrahim Sanogo, Unité de Formation et de Recherche en Sciences Médicales, Côte d'Ivoire

Siaka Sidibé, Editor-in-Chief, *Mali Médical* et Faculté de Médecine, du Pharmacie et

d'Odontostomatologie, Mali

Toumani Sidibé, Centre de Recherche et de Documentation sur l'Enfance (CREDOS) et Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

Fode Mohamed Sylla, Faculté de Médecine, du Pharmacologie et d'Odontostomatologie, Guinea

Younoussa Touré, Institut des Sciences Humaines, Mali

Moussa Y Maiga, *Mali Médical* et Faculté de Médecine, du Pharmacie et d'Odontostomatologie, Mali

### **Annex 3. Workshop on peer review of scientific manuscripts: Test**

Test (30 minutes)

Please write your answers on this form

1. Cite two objectives of peer review of a scientific article
2. What is an 'editorial'?
3. Cite two objectives of 'letter to the editor'.
4. What does 'IMRAD' stand for?
5. What is a case-control study?
6. What is a 'double-blinded randomized trial'?
7. Give 13 important general criteria for evaluating the substance of an original article.
8. Cite the two first steps to be considered once a decision has been taken to write a scientific article for publication.
9. Name two main electronic servers for literature searching.
10. What are the 'Vancouver requirements' for citing references?